

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SARGENT LAKE	Lake Area (ha):	14.20
Town: BELMONT	Maximum depth (m):	3.0
County: Belknap	Mean depth (m):	1.2
River Basin: Merrimack	Volume (m <sup>3</sup> ):	430500
Latitude: 43°27'02" N	Relative depth:	0.4
Longitude: 71°26'15" W	Shore configuration:	1.00
Elevation (ft): 764	Areal water load (m/yr):	6.50
Shore length (m): 2100	Flushing rate (yr <sup>-1</sup> ):	5.30
Watershed area (ha): 493.4	P retention coeff.:	0.61
% watershed ponded: 6.6	Lake type:	natural w/dam

BIOLOGICAL:

5 February 2003

25 July 2002

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 65%	SPARSE - NO DOMINANT
	#2		(DETRITUS COMMON)
	#3	(ALL ALGAE SPARSE)	
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			3.67
DOM. ZOOPLANKTON (% TOTAL)	#1	POLYARTHRA 40%	NAUPLIUS LARVA 64%
	#2	ROTIFER SPP. 32%	
	#3		
ROTIFERS/LITER		143	17
MICROCRUSTACEA/LITER		27	87
ZOOPLANKTON ABUNDANCE (#/L)		170	109
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			2.8
BOTTOM DISSOLVED OXYGEN (mg/L)		6.5	8.5
BACTERIA (E. coli, #/100 ml)	#1		53
	#2		1
	#3		1

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: SARGENT LAKE

Town: BELMONT

	5 February 2003		25 July 2002		
DEPTH (m)	1.5		1.5		2.5
pH (units)	6.0		6.4		6.4
A.N.C. (Alkalinity)	5.8		4.6		4.4
NITRATE NITROGEN	0.10		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.25				
TOTAL PHOSPHORUS	0.005		0.028		0.012
CONDUCTIVITY ( $\mu$ mhos/cm)	96.5		77.8		77.9
APPARENT COLOR (cpu)	17				
MAGNESIUM			0.86		
CALCIUM			< 1.0		
SODIUM			8.8		
POTASSIUM			0.51		
CHLORIDE	17		15		15
SULFATE	6		5		5
TN : TP					
CALCITE SATURATION INDEX					

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 2002**

D.O. S.D. PLANT CHL TOTAL CLASS

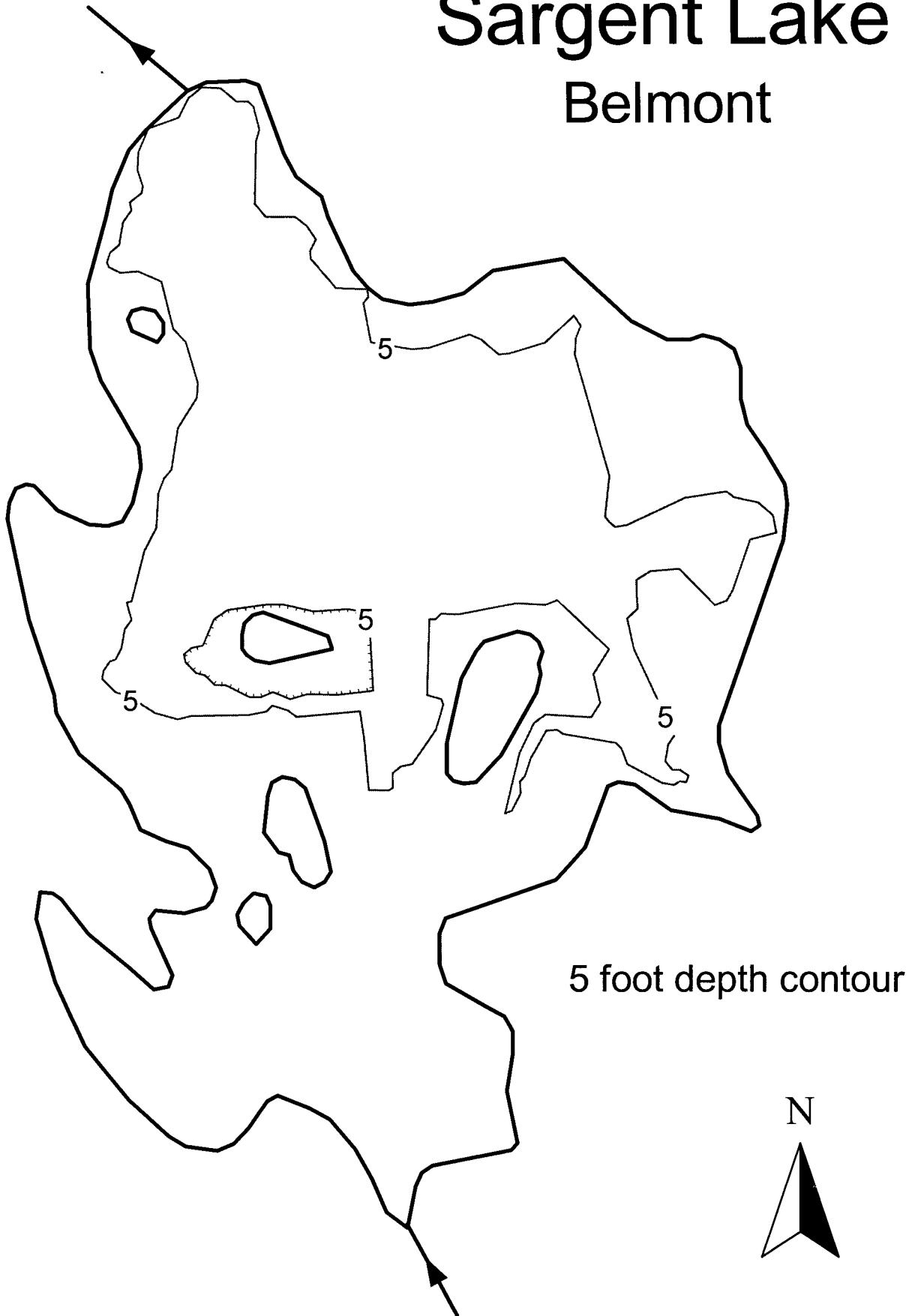
**	3	3	0	6	Meso.
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**COMMENTS:**

1. aka Sargent Reservoir.
2. Previously surveyed in 1983; no change in trophic class.
3. Summer net phytoplankton was very sparse but plant detritus was common.

# Sargent Lake

## Belmont



0 0.05 0.1 Kilometers

III-178

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TOWN: BELMONT  
WEATHER: Sunny & warm; light breeze

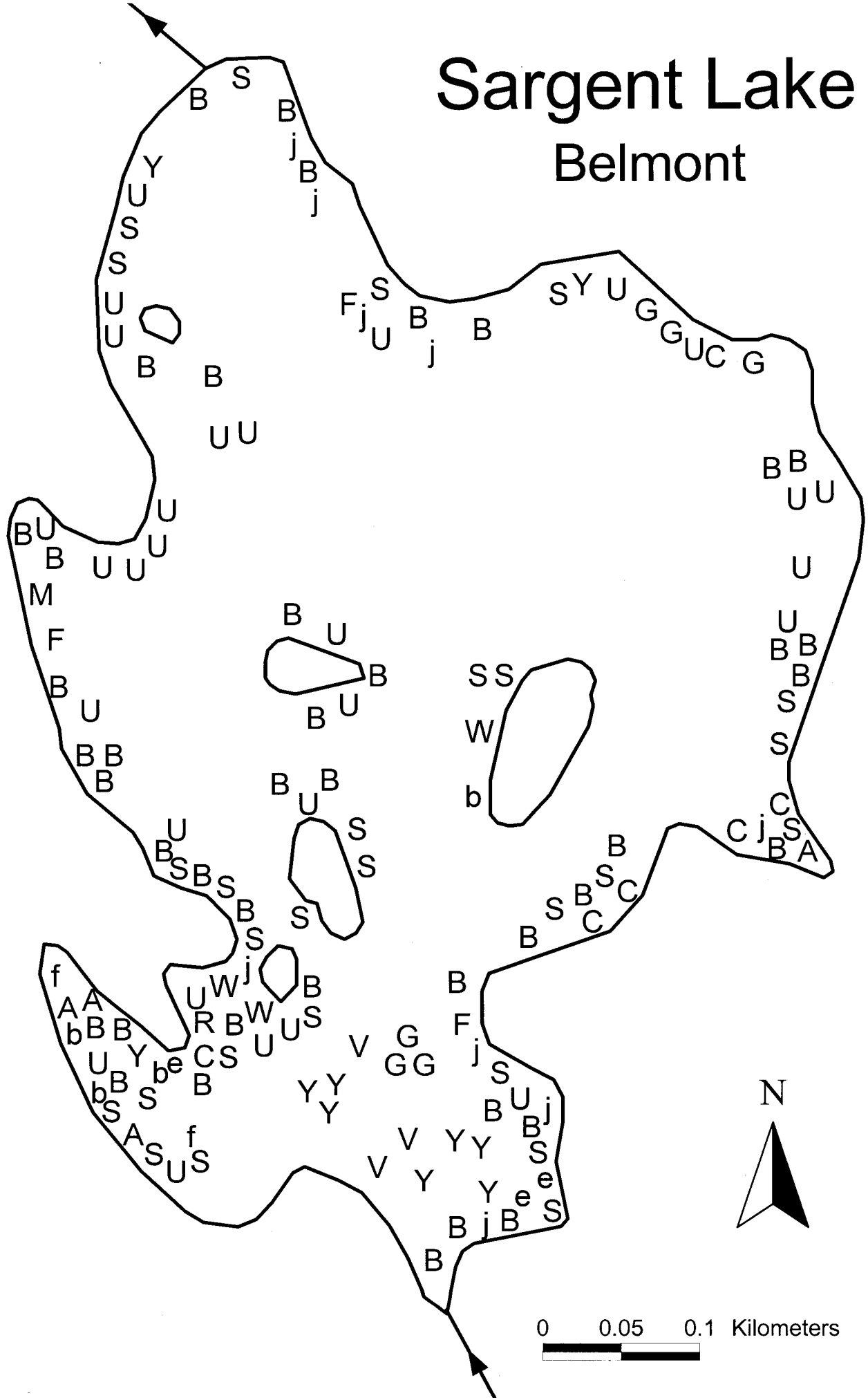
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**COMMENTS :**

\*Dissolved oxygen values are in mg/L

# Sargent Lake

## Belmont



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